

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A generator control system of a vehicle generator which includes a field coil, said control system comprising:

 a switching element which turns on or off to control field current supplied to the field coil;

 field current detecting means for detecting an amount of the field current flowing through said switching element;

 calculating means for calculating an average value of the field current supplied to the field coil when said switching element turns on according to the amount of the field current; and

 switch controlling means for controlling said switching element at a fixed intervals according to the average value of the field current and a limit value of the field current, wherein said calculating means calculates the average value according to an amount of the field current detected by said field current detecting means right after said switching element switches its operation from turning on to turning off and an amount of current detected by said field current detecting means right before said switching element switches its operation from turning on to turning off.

2. (Canceled)

3. (Currently Amended) The control system as claimed in claim 1,

 wherein said switch controlling means determines a duty ratio of the subsequent operation of the switch switching element according to the average value of the field current, the limit value of the field current and a duty ratio of the last operation of the switch switching element.

4. (Canceled)

5. (New) A control system for a vehicle generator which includes a field coil, said control system comprising:

a switching element which controls field current supplied to the field coil;

field current detecting means for detecting an amount of the field current

flowing through said switching element;

calculating means for calculating an average value of the field current supplied to the field coil according to an amount of the field current detected by said field current detecting means right after said switching element switches its operation from turning on to turning off and an amount of current detected by said field current detecting means right before said switching element switches its operation from turning on to turning off; and

switch controlling means for providing a PWM signal for cyclically controlling said switching element according to the average value of the field current and a limit value of the field current.

6. (New) The control system as claimed in claim 5,

wherein said switch controlling means determines a duty ratio of the subsequent PWM signal according to the average value of the field current, the limit value of the field current and a duty ratio of the last operation of the switching element.

7. (New) A generator control system of a vehicle generator which includes a field coil, said control system comprising:

a switching transistor which turns on or off to control field current supplied to the field coil;

field current detecting means for detecting an amount of the field current flowing through said switching transistor;

calculating means for calculating an average value of the field current according to an amount of the field current detected by said field current detecting means right after said switching transistor switches its operation from turning on to turning off and an amount of current detected by said field current detecting means right before said switching transistor switches its operation from turning on to turning off; and switch controlling means for controlling said switching transistor at fixed intervals according to the average value of the field current and a limit value of the field current.

8. (New) The control system as claimed in claim 7,
wherein said switch controlling means determines a duty ratio of the subsequent operation of the switching transistor according to the average value of the field current, the limit value of the field current and a duty ratio of the last operation of the switching transistor.